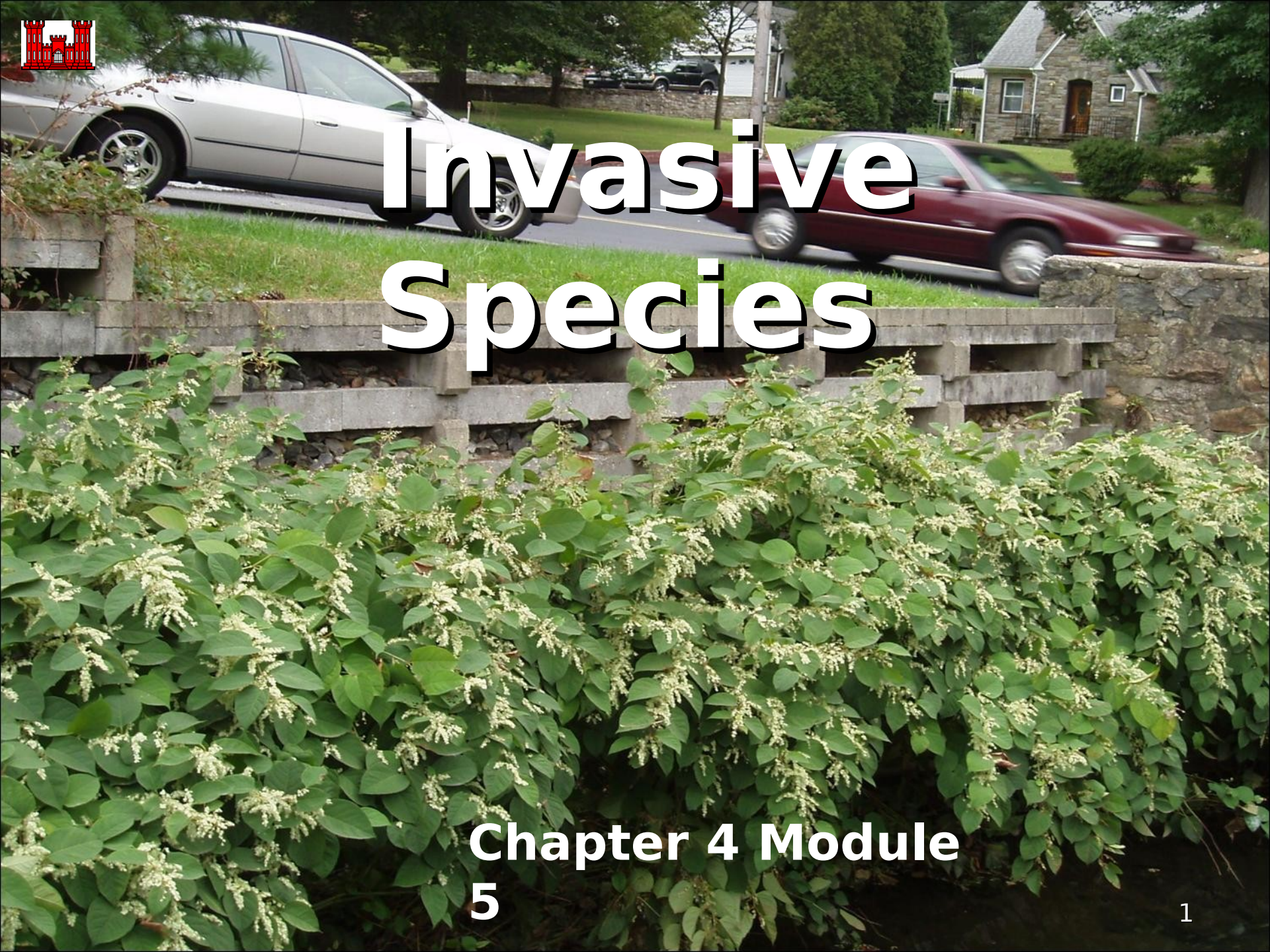


Invasive Species

Chapter 4 Module 5

Invasive Species

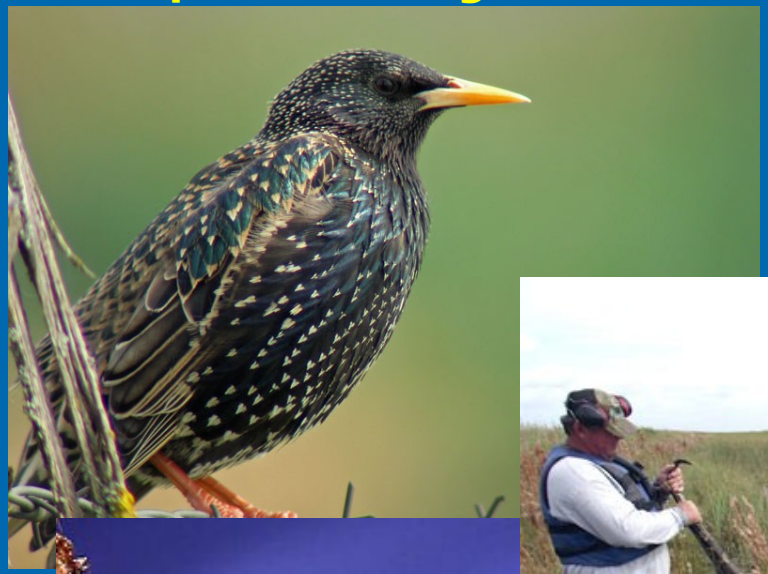
What are they?

- 1) non-native (or alien) to the ecosystem under consideration and
- 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. [Executive Order (EO) 13112].

Can you name some

Examples: Animals

European starling



American bullfrog

Burmese python

Zebra mussel

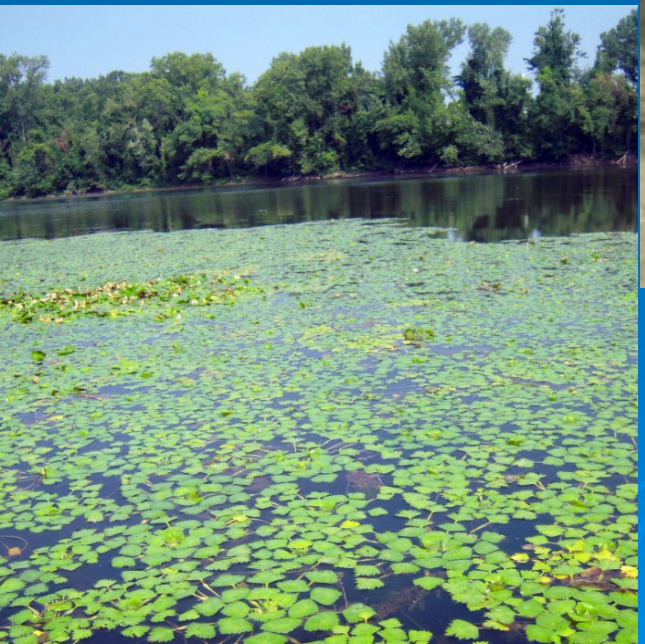
Red imported fire ants

Examples: Plants

Kudzu

Melaleuca

Tree-of-Heaven



Water chestnut

Saltcedar

W…d?

- Disru…
- Harm… inclu… …ect and outc…
- Econ… …fisheries, eco-l… …)

"Invading alie… …20 billion damages per year.

Currently the … …mber and increasin…

About 42% of … …Endangered species li… …f alien-invasive species." (Pimentel et. al, 2004)

Ecosystems

Paul and Anne Ehrlich
1981

Dependency

Monarch butterfly

Common milkweed

Common reed
Phragmites

170 species - Eurasia

5 species - US

Invasive Species Policy Overview

- EO 13112 establishes nationwide policy in 1999.
- Applicable to Operations, Civil Works Planning, and Regulatory.
- Engineer Research and Development Center (ERDC) is research lead.
- Invasive Species Leadership Team (ISLT) provides oversight of Corps Invasive Species Program.

Asian carp

What does EO 13112 say…

- **Federal agency shall, to the extent practicable and permitted by law,**
- **(1) identify such actions promoting invasive species;**
- **(2) subject to….. use relevant programs and authorities to: (i) prevent introduction; (ii) control population in a cost-effective and environmentally sound manner; (iii) monitor populations; (iv) provide for restoration of native species and habitat conditions; (v) conduct research and develop technologies and (vi) promote public education; and**
- **(3)do not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States**

Corps Invasive Species Policy Overview

- **Civil Works Planning – will address invasive species concerns in their analysis of project impacts**
- **Operations – invasive species management should be included in O&M responsibilities**
- **Regulatory – permit evaluation process may address invasive species and associated compensatory mitigation**

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
WASHINGTON, D.C. 20314-1000

CECW-ZA

JUN - 2 2009

4. **FOCUS.** The National Invasive Species Management Plan (the Plan) will serve as a blueprint for Corps action on both aquatic and terrestrial invasive species. Information

FOR SEE DISTRIBUTION

SUBJECT: U.S. Army Corps of Engineers Invasive Species Policy

b. Civil Works Planning Activities. Civil Works planning documents will address invasive species concerns in their analysis of project impacts. Collaboration with Federal, State and local agencies will be maintained in developing those analyses.

2008 – 2012
National Invasive Species Management Plan

5. **DEFINITIONS AND AUTHORITIES.** Refer to Enclosures 2 and 3 respectively.

FOR THE COMMANDER:

Close collaboration with partners, stakeholders, and customers will be key to this program's success!

3 Encls

MERDITH W. B. TEMPLE
Major General, USA
Deputy Commanding General
for Civil and Emergency Operations

August 2008

What should you do (work)?

- **For all Corps CW Feasibility and CAP studies:**
  - **Invasive species will be inventoried, analyzed and managed at a level of detail comparable to sensitive species.**
  - **Feasibility and NEPA documents shall include full disclosure of invasive species as a basis for coordination, identification of planning goals, objectives, constraints, management measures , and project alternatives.**
  - **Plans and Specifications will be scoped to ensure timely consideration and incorporation of invasive species management measures. Project planting plans should include only native species.**

More Information

- National Invasive Species Information Center
  http://www.invasivespeciesinfo.gov/
- ERDC – Invasive Species Center
  http://el.erdc.usace.army.mil/aqua/isc.html
- Book: *Bringing Nature Home* – Douglas Tallamy (2
- Lady Bird Johnson Wildflower Center (Univ. of Texas)
  http://www.wildflower.org/collections/

Lady Bird Johnson Wildflower Center Webs

http://www.wildflower.org/collections/

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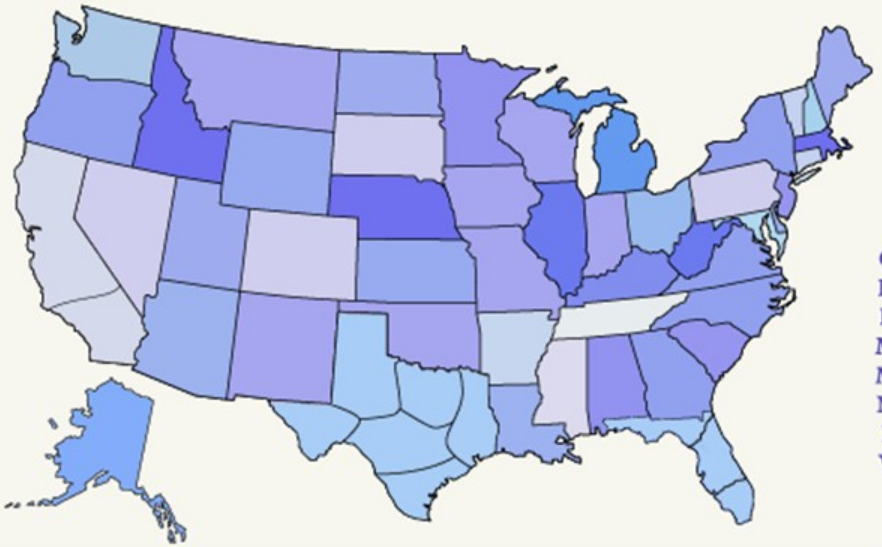
RECOMMENDED SPECIES

SHARE

Welcome to the Recommended Species section of the Native Plant Information Network. Here is where we post lists of native plants recommended for various purposes. Once you have selected a collection, you can browse the collection or search within it using the combination search. Please contact the NPIN Director If you have an interest in adding a collection to this section.

Recommended Native Plants by State

Select State or Province



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Questions